

RES LIGUSTICAE

XXI.

Contributions to our knowledge of the *Diplopoda* of Liguria, by R. I. POCCOCK of the British (Nat. Hist.) Museum.

In Vol. XXIX, pp. 59-68 of these Annali, I published an account of a series of *Chilopoda* obtained by Mr. Oldfield Thomas in Liguria in the autumn of 1887. The present paper is a report upon the *Diplopoda* collected at the same time. But since the remarks that were made in my previous paper respecting the localities where the specimens were obtained, apply equally well to the following contribution, no further words of introduction are necessary upon the present occasion.

Class DIPLOPODA.

Sub class Pselaphognatha.

Family POLYXENIDAE.

Two genera of this family may I think be recognised in Italy. I propose to define them as follows:

- a. *Antennae* short, the apical segment minute; *legs* short with trilobed tarsal claw. *Terga* furnished with a double row of setae along the posterior border *Polyxenus*
Type *lagurus* (Linn.).
- b. *Antennae* long, the apical segment about as long as the penultimate; *legs* long, claw simple, not trilobed. *Terga* furnished with a single posterior row of setae *Lophoproctus*, gen. nov.
Type *coecus*, sp. n.
contains also *Polyxenus lucidus*, Chalande.

Genus **POLYXENUS**, LATR.1. **Polyxenus lagurus** (LINN.)

Genoa.

Mr. Thomas brought back no examples of this species from Liguria, but he tells me that he recollects seeing it under the bark of the wooden props supporting the vines at Borzoli, near Genoa.

According to Berlese (*Acari Myriopoda*, etc. pt. LVI), it occurs throughout Italy in trees and damp places. This author states that it attains a size of 8 mm.! Presumably this figure is a misprint for 3.

2. **Polyxenus albus**, sp. n.

Allied to *P. lagurus*, Linn.

Colour: integument and hairs white. *Head* as in *P. lagurus*, *antennae* of about the same length and form as in this species; with a distinct cluster of glassy-bead-like eyes on each side.

The *hairs* on the dorsal surface arranged as in *P. lagurus*, but those running along the posterior margin of the tergites apparently considerably longer, for when lying backwards they extend beyond the middle of the succeeding tergite.

Length 3 mm.

Locality: Genoa. On the low cliffs facing the sea just to the east of the town.

Mr. Thomas, who is familiar with the appearance of *P. lagurus* when alive, informs me that this new species immediately struck him as peculiar on account of its pallid colouring.

Genus **LOPHOPROCTUS**, nov.3. **Lophoproctus coecus**, sp. n.

Pale yellow like *Polyxenus albus*.

Head without eyes. *Antennae* very long, their length almost

equal to the width of the head, the last segment long and conical, almost or quite as long as the penultimate which is about twice as long as wide, the antepenultimate about as long as the two just described taken together.

Anal tuft long and narrow.

The rest of the body apparently as in *P. lagurus*.

Length up to nearly 4 mm.

Locality: Nervi. On the open hill-sides beneath stones, some four or five hundred feet in altitude.

This species differs from all the other species of the family in the absence of eyes; it is further remarkable for the great length of the antennae. We thus see that the loss of the organs of sight is compensated for by the greater development of the organs of touch.

In the length of its antennae it closely resembles *P. lucidus* of Chalande (see Silvestri, Boll. Soc. Rom. Zool. III, 1893). But the latter species is provided with well developed eyes.

Sub. class Chilognatha.

Order **ONISCOMORPHA.**

Family GLOMERIDAE.

4. **Glomeris marginata** (VILLERS).

Loc.: Portofino; Monaco.

5. **Glomeris conspersa**, C. Koch.

Portofino; Genoa.

6. **Glomeris connexa**, C. Koch.

Monaco.

Var. *ligurica*, Latz.

Sub. var. *nycthemera*, Latz.

Portofino, Genoa, Finale, Nervi.

Sub. var. *xanthopyge*, Latz.

Borzoli, Finale, Busalla.

Order **HELMINTHOMORPHA.**Family **POLYDESMIDAE.**7. **Polydesmus platynotus**, sp. n.

(Fig. 10)

Colour (in alcohol). A uniform greyish-brown above; lower surface and legs flavous: antennae darker than legs, distally infusate.

♀. *Body* about equal in length to that of *P. complanatus* (Linn.), narrowed anteriorly. *Antennae* a little wider than the body-width. *First tergite* as wide or a little wider than the head and mandibles, with very distinct keels, the anterior border straight, anterior angles widely rounded, posterior angles squared, posterior border of keels directed obliquely forwards, the upper surface scarcely sculptured, with a posterior transverse depression, and some scattered granules. The *rest* of the *terga* flat, with very wide keels, of which those at the anterior end of the body are slightly or very noticeably elevated; the areolate sculpturing weakly defined and low, much less noticeable than in *P. complanatus*, keel of the 5th segment with its posterior border nearly in a line with the posterior border of the middle area; posterior border of the rest distinctly emarginate, and directed more and more backwards towards the hinder end of the body; anterior angle of keels squared or at least not rounded, the posterior angle from the 6th backwards becoming more and more acute towards the hinder end of the body, the lateral border of the pore-bearing keels with four teeth or notches, the others with three, the anterior keels more strongly toothed than the posterior.

Legs longer as compared with the length of the body than in *P. complanatus*.

♂. A little thinner than ♀, keels higher, copulatory feet very like that of English examples of *P. complanatus*, strongly geniculate, and terminating in an anterior and a posterior process;

the latter short, pointed directed as in *complanatus*, but distinctly sinuate, its posterior margin being strongly hollowed out basally, the anterior process with its distal half bent at right angles directed obliquely inwards, but much shorter than in *complanatus*, slender, with a minute spine above the hooked apex and a conspicuous triangular tooth just before the bend.

Length (specimen not extended) about 20 mm., width of ♂ 3.2, of ♀ 3.5 mm.

Locality: Genoa and Busalla 1300-1500'.

8. *Polydesmus collaris*, C. Koch.

Liguria.

Specimens of this species were kindly presented to Mr. Thomas by Dr. G. Caneva.

9. *Polydesmus laurae*, Pocock.

Syn. *P. laurae*, Pocock, Ann. Mus. Civ. Genov. (2), X, p. 399-400 (Dec. 1890).

» *P. eximius*, Berlese, Acari, Myr. etc, pt. 59, n. 8 (Feb. 1891).

Locality: Busalla.

It is evident that Dr. Berlese had not seen the description and fig. of *P. laurae* when he published his description of *P. eximius*. There can be no doubt that the two names apply to the same species. The examples named *P. eximius* were taken at Boscolungo by Dr. Cavanna.

10. *Polydesmus genuensis*, sp. n.

(Fig. 1)

♀. Of medium size and slender.

The *first tergite* very weakly sculptured, its antero-lateral border evenly convex, not keeled, the posterior angle obtuse. The sculpturing on the *rest* of the *tergites* weak, stronger at the hinder end, the raised areas very shortly ciliate; *keels* horizontal, but small, not quite on a level with the summit of

the dorsum, their anterior angles rounded, the posterior acute and produced, the lateral border very obscurely denticulate, notched, each notch bearing a short hair.

♂. Flatter than the ♀, the keels being more raised, so that the posterior angle at the hinder end of the body projects above the middle of the dorsum.

Copulatory feet geniculate, the distal segment long, slender, hooked at the apex with a minute subapical process; the femoral segment produced distally into a robust bifid branch, which is nearly as long as and contiguous with the distal segment, and bears a small tooth-like setiferous process at its base.

Length up to about 18 mm., width 2 mm.

Locality: Genoa and Busalla.

11. *Strongylosoma italicum*, LATZ.

Bull. Soc. Ent. Ital. XVIII, p. 309.

Genoa.

Family CHORDEUMIDAE.

12. *Atractosoma athesinum*, FEDR.

Cf Latzel. Die Myr. Ost.-Ung. Mon. ii, pp. 183-186, pl. VIII, fig. 99-100.

Genoa.

13. *Atractosoma doriae*, sp. n.

(Fig. 2-2a)

♂. Very much resembling the following species in colour, length of antennae, shape of eyes and number of ocelli.

Dorsal surface finely shagreened, very flat; the *keels* rising high, almost at the summit of the side, horizontal or elevated, very large, the anterior angle rectangularly rounded, the posterior produced and dentiform, the lateral border marked by an indistinct groove, the posterior border of the keels straight or

lightly emarginate; the posterior border of the median dorsal surface lightly emarginate, but without a transverse subgranular ridge in front of it. The *setiferous tubercles* very small and the setae very short, the tubercles spaced about as in the following species.

The anterior *legs* a little thickened. The infero-lateral border of the tergite of the 7th somite mesially bluntly dentate.

The internal pieces of the anterior pair of *copulatory feet* long, stout and contiguous at the base, slender and diverging distally, strongly geniculate, hooked at the apex: the lateral piece composed of two slender erect branches, the anterior of which is considerably the longer of the two and is rectangularly curved at its distal extremity, the posterior is only lightly curved; the posterior pair of copulatory feet are small, fuscous and apparently resemble tolerably closely those of *A. meridionale*.

Length up to about 18 mm.

Locality: Busalla.

Differs from the following in its larger keels, shorter setae, smaller tubercles, copulatory apparatus, etc. Apparently somewhat nearly related to *A. meridionale* of Fanzago (cf Latzel, loc. cit. p. 177. pl. VIII, fig. 95), but differing at least in the form of the copulatory feet.

14. *Atractosoma gestri*, sp. n.

(Fig. 3-3a)

♀. *Colour* flavo-brunneous, the dorsal surface, excepting the keels, subfuscous, antennae fuscous, legs flavous with the distal extremity infuscate.

Antennae much longer than the width of the body. *Eyes* manifest, triangular, composed of about 25 ocelli, arranged in about 6 longitudinal rows.

Dorsal surface of each segment finely shagreened, mesially lightly convex, posterior margin lightly concave, with a transverse sub-granular mesially interrupted crest just before it. The *keels* moderately large, horizontal, rising high on the lateral surface,

the posterior border straight and directed obliquely forwards and outwards, the posterior angle produced, subdentate, the anterior angle nearly rectangularly rounded, the lateral border defined by a groove which curves anteriorly in front of the anterior setiferous tubercle; the *setiferous tubercles* moderately large, the distance between the one on the dorsum and the anterior of those on the keels about twice as great as the distance between those on the keels; the setae tolerably long.

♂. *Anterior legs* thickened. Dorsal surface much flatter in appearance owing to the larger size and upward tilting of the keels. Inferior edge of the 7th tergite angled; *copulatory feet* with prominent apices, the internal sclerites of the anterior pair approximated, robust, not particularly elongate and obscurely divided at the apex, with an external longer compressed process, and an internal shorter one, the external branch is long, slender and mesially geniculate, its distal half projecting inwards, the apices of the two being capable of crossing beneath the internal sclerites; the posterior pair short pale coloured sub-laminate and curved.

Length up to about 13 mm.

Locality: Busalla.

This species in many of its characters is almost intermediate between the preceding two, *A. athesinum* and *A. doriae*.

The keels are larger than in *athesinum*, with the posterior border produced, the tubercles are smaller and the setae shorter, moreover the copulatory feet of the two species are very differently constructed (cf Latzel's fig. of this apparatus in *athesinum*).

In some points it seems to resemble *A. canestrinii* of Fedrizzi, but is different so far as can be decided from Berlese's figure of this species, which seems to show that the dorsal tubercles are much larger than in *A. gestri*.

15. *Craspedosoma mutabile*, LATZ.

Portofino.

16. *Craspedosoma levicanum*, FEDR.

Cf Latzel, loc. cit. p. 204.
Portofino, Genoa, Busalla.

17. *Chordeuma sylvestre*, C. KOHN.

Portofino, Borzoli, Busalla.

Family CALLIPODIDÆ.

18. *Callipus foetidissimus* (SAVI).

Syn. *Iulus foetidissimus*, Savi, Opusc. Scient. Bologna, I, p. 334 (1817), and III, pp. 52-64 (1819).

Syn. *Platops hardwickii*, Newport, Ann. Nat. Hist. XIII, p. 267 (1844).

• ? *Lysiopetalum foetidissimum*, Berlese, Acari, Myr. etc. pt. II, n. 7.

Genoa, Borzoli, Busalla, Finale, Nervi, Monaco.

Newport supposed, though upon what grounds is not apparent, that the specimen he described as *Platops hardwickii* was from India. In reality it is specifically identical with the examples of *Callipus* that Mr. Thomas obtained from Liguria. That these specimens are conspecific with those that Savi described as *foetidissimum*, I have no doubt.

My reason for calling in question Berlese's identification of this species is that the figure he has published of the copulatory feet does not represent the form of this apparatus.

In most species of *Callipus* the number of segments is very nearly constant; but it is an interesting fact that in *foetidissimum* there is considerable variation in this character.

Family IULIDÆ.

19. *Blaniulus venustus*, MEIN

Genoa.

20. **Blaniulus hirsutus**, BROLEMAN.

Ann. Soc. Linn. Lyon, 1889, p. 279, pl. i, fig. 5-9.
Monaco.

Recorded by Broleman from Mentone. The British Museum also has examples from Hyères, that were collected by Mons A. Dollfus and kindly presented to the Trustees by that gentleman.

21. **Pachyiulus ocnologus**, BERLESE.

Acari, Myriopoda etc., pt. XXIII, no. 3.
Genoa, Nervi, Finale.

22. **Iulus sabulosus** (LINN.)

Genoa, Finale, Portofino, Busalla.

23. **Iulus aurozonatus**, BERLESE.

Acari, Myriopoda etc., pt. XXI, no. 5.
Genoa, Borzoli.

24. **Iulus thomasii**, sp. n.

(Fig. 4-4a)

Closely allied to *I. mediterraneus*, Latz.

Colour: a deep slate grey above, with the hinder border of the tergites obscurely ferruginous; the sides of the body beneath the pore pale olivaceous and posteriorly marbled deep green and black; head and antennae deep olivaceous or fuscous; legs clear yellow.

Body robust narrowed in front and behind.

Eyes well developed subcircular. Frontal pores absent; with six labral pores.

First tergite narrowed and angular, laterally sulcate and with a marginal sulcus, smooth above. The *second* feebly striate above along the hinder border. The rest of the *somites* exceedingly

closely and finely striate behind, the area in front of the pore irregularly striolate behind, smooth in front; sulcus strong, sinuate by the pore; pores situated a little distance behind the sulci, the area just in front of the pore smooth.

Anal somite small, the caudal process long, acute, upcurled and hairy; *valves* with raised margins, hairy, punctulate.

Legs short.

♂. Much thinner than ♀. *Antennae* much longer, reaching to the end of the first somite. *First legs* hook-like.

Legs with the 5th segment padded.

Copulatory feet: anterior lamina narrowed below and lightly bent inwards, the two pieces, however, separated below by a wide space; the posterior portions not visible from the front, compact but complicated (vide fig. 4, 4a).

N° of somites 52-54.

♀, length 47 mm., width 6; ♂, length 37 mm., width 5.

Locality: Monaco.

This species is undoubtedly closely related to *I. mediterraneus*; the form of the copulatory feet, however, is very different in the two. Moreover the caudal process is longer in *I. thomasi* and the legs are a bright yellow, instead of fuscous.

25. *Iulus aleator*, sp. n.

(Fig. 5)

♂. Very closely allied to the preceding.

Colour black, lower portion of face ferruginous, antennae fuscous, legs ochraceous or flavous and distally infusate.

Head, eyes, antennae, first tergite, etc. as in the preceding.

The *transverse sulcus* of the somites very deep and lightly sinuate near the pore, the area in front of it longitudinally striate at the sides, transversely striolate above; the area behind it more deeply and much less closely sulcate than in *I. thomasi*.

The *pore* just behind the sulcus, being separated from it by a space that is only about equal to the diameter of the pore. *Anal tergite* as in *I. thomasi*, but the caudal process shorter.

The anterior *legs* like those of *I. thomasi*, but relatively smaller; the fourth and fifth or only the fifth segment of the legs padded.

Copulatory feet more resembling those of *I. mediterraneus*, inasmuch as the external branch of the posterior portion is largely visible at the sides when the apparatus is viewed from the front; the anterior laminae are contiguous, parallel sided and distally bifid, the rounded extremity of the median portion appears in the bifurcation, the posterior portion is shorter than the anterior, but wider, the two rami widely separated at their bases converge and meet at their apices, the internal one is furnished near its apex with a short hooked process.

N° of segments 44-48.

Length 31 mm., width 2.5.

Locality: Nervi (2 ♂), Monaco (4 ♂).

Apart from the form of the copulatory feet this species differs from *I. thomasi* in the absence of the pale colouring on the sides, in the closeness of the pore to the sulcus, in the smaller number of its segments and its shorter body.

26. **Ophiulus unilineatus**, C. KOCH.

Monaco.

27. **Ophiulus trilineatus**, C. KOCH.

Portofino, Finale, Borzoli, Busalla.

28. **Ophiulus pilosus**, NEWPORT.

Var. nov. *genuensis*.

It is with considerable hesitation that I venture to add another name to the list of species of *Iulus* belonging to the *terrestris* group. But being unable to find a name that will satisfactorily fit a common Ligurian form, there does not appear to be any other course open to me.

In the Ann. and Mag. of Nat. Hist. (6), XI, p. 249, I have pointed out that *Iulus pilosus* of Newport was redescribed as *fallax* by Meinert, according to the diagnosis of this last species that Dr. Porat has recently given. This *fallax* of Meinert appears further to be the same species as *I. longabo* of C. Koch and Latzel. Therefore *longabo* must also be a synonym of *pilosus*, Newp.

Now according to Berlese, *longabo* is a commonish species in Italy. But until specimens of his *longabo* have been compared with specimens of Koch's *longabo* from Germany, it seems to me to be permissible to doubt the identification of the Italian specimens. At least I am in a position to assert that I have never seen an Italian *Iulus* agreeing with *I. pilosus* of Newport.

But in Liguria Mr. Thomas obtained a large number of specimens of an *Iulus* which is certainly very nearly related to *I. pilosus* and which I suspect is the *I. longabo* of Berlese.

These specimens vary very much in size; large ♀ examples attain a length of 38 mm., while the ♂, which is much thinner, reaches a length of 28 mm.

There are about 63 or 65 segments.

This form differs from *pilosus* in that in the ♂ the anterior pair of feet are considerably smaller, the distal segment being less openly curved, and in that the stipites of the gnathochilarium are not swollen.

As in *pilosus* the coxae of the second pair of legs are without a process.

Mr. Thomas obtained this form at Portofino, Nervi, Genoa, Busalla and Monaco.

29. *Brachyiulus pusillus* (LEACH.)

Genoa, Nervi.

30. *Diploiulus distinctus* (LUC.)

Monaco. This Algerian species is new to the European fauna.

31. *Diploiuulus dicentrus*, LATZ.

Portofino.

32. *Diploiuulus*? *brownii*, sp. n.

(Fig. 6)

Colour almost entirely pale flavous, the black patches of pigment marking the eyes very conspicuous, often a line of fuscous spots on the side marking the pores, the anal somite sometimes also lightly fuscous.

Head punctulate, the forehead marked with a transverse stria as in *Blaniulus*; frontal setae absent. *Eyes* indistinct, represented by a patch of black pigment.

First tergite laterally narrowed, its anterior border lightly emarginate. The rest of the *tergites* smooth without setae, the longitudinal grooves somewhat widely separated, abbreviated in front and behind. The *transverse sulcus* moderately conspicuous, apparently interrupted on a level with the pores. *Pores* large, annulate, situated in front of the sulcus; in the anterior half of the body, far removed from it, and lying close behind the border of the preceding tergite; in the posterior half of the body touching the sulcus from before.

Anal somite punctulate, striolate, the tergite produced into a long straight pointed caudal process, projecting far beyond the valves; *valves* with margins compressed, trisetose.

Legs short, slender, sparsely setose.

♂. Anterior legs hook-like. Slenderer than ♀.

Nº of somites about 48.

Length about 10 mm.

Locality: Portofino.

This new species falls into the section *Allainulus* as defined by Latzel. Of this subgenus the species to which it is most nearly allied are *molybdinus*, *pelidnus* and *nanus*, agreeing with them in the absence of frontal setae, the possession of a long pointed tail. It may, however, without difficulty be recognized by the forward position of its very conspicuous pores, its marginally compressed anal valves, etc.

I have great pleasure in dedicating this new and interesting little species to H. B. M. Consul Montagu Y. Brown to whose hospitality Mr. Thomas was indebted for the opportunity of making a collection on the promontory of Portofino.

Supplementary Note upon some *Diptopoda* obtained in North Italy and Switzerland by Mr. O. THOMAS during the spring of 1891.

Family POLYDESMIDAE.

1. *Polydesmus thomasi*, sp. n.

(Fig. 7)

Of medium size.

Colour when alive pale rosy pink, a pale brownish red in alcohol: legs pale.

The upper surface of the *body* polished, the normal sculpturing tolerably well defined, the setae short. The *first tergite* almost without sculpturing, the anterior angles widely convex. The *keels* of the rest of the segments about on a level with the summit of the back, horizontal or sloped upwards posteriorly; the anterior angles wide, well developed and rounded; the external margin very lightly convex, parallel in a general way with the long axis of the body and scarcely denticulate; the posterior angle nearly square in the 2nd-5th segments, from the 6th to the end gradually produced backwards.

Copulatory feet of the ♂ as in fig. 7.

Length 14.5 mm.

Locality: Lucerne; Vitznau, on the lake of Lucerne.

Allied to *P. lauræ*, Pocock, but certainly differing in the form of its copulatory feet.

2. *Polydesmus asthenestatus*, sp. n.

(Fig. 8)

♂. *Colour* (in alcohol) testaceous.

Of small size and slender build.

The *antennae* strongly clavate.

The *keels* situated on a level with the summit of the segments horizontal or sloping upwards posteriorly, the anterior shoulders small; the external margins lightly convex and sloped outwards and backwards, furnished with three teeth, the posterior of which is close to the posterior angle and gives it a bifid appearance. From the 12th segment the posterior angles project backwards beyond the line of the hinder border of the tergites. The *sculpturing* of the whole of the dorsal surface well developed, the two posterior transverse rows of tubercles well defined, each tipped with a seta; the area in front of the transverse sulcus indistinctly subdivided and furnished with four setae.

Copulatory foot of the ♂ as in the figure 8.

Length 8 mm.

Locality: Fiesole (near Florence).

At the first glance this species looks like a *Brachydesmus*; it has, however, 20 distinct segments.

Family CHORDEUMIDAE.

3. *Craspedosoma rawlinsii*, LEACH.

Lucerne.

Family CALLIPODIDÆ.

4. *Callipus foetidissimus* (SAVI).

Florence.

Family IULIDAE.

5. *Mesoiulus mariae*, sp. n.

(Fig. 9)

Colour a deep green, the anterior end of the body pale fulvous, reddish at the posterior end; antennae and legs pale yellow.

Head smooth, only minutely striolate, marked with a transverse stria, without a vertical frontal sulcus, and without frontal setae; the labral region furnished with 4 distinct setiferous pores. *Antennae* not conspicuously clavate. *Collum* entirely smooth, its

inferior angle acute and marked with two striae. On the rest of the *somites* the longitudinal striae never attain the summit, and only two or three are visible above the pores, inferiorly the striae are complete, above they are incomplete. The *transverse sulcus* is deep and beaded, with the areas in front and behind it elevated; behind this sulcus there is a second faint transverse sulcus. The *pores* are conspicuous, well behind the principal sulcus, but only just behind the second; they are situated very high on the sides. The *anal tergite* angled behind, covering but not surpassing the valves, furnished posteriorly with a series of long setae; *valves* not compressed, hirsute behind. *Legs* hairy, setose.

♂. With the anterior pair of legs small and hook-like; the posterior angle of the mandible produced, the legs not padded.

Number of segments 45.

Length about 14 mm.; width 7 mm.

Locality: Venice, one ♂ specimen only was taken.

Owing to its small size, slender build, the absence of eyes and the absence of longitudinal striae on the dorsal surface of the body, as well as in the deepness of the transverse sulcus, this interesting new species reminds one forcibly of *Blaniulus*. The anterior feet of the ♂, however, resemble those of a true *Iulus*.

This species is thus apparently to be referred to the genus *Mesoiulus* of Berlese. It differs from *M. paradoxus* of Berlese from Padova in that the segments are not striate above, those at the anterior end of the body being only striate at the sides; moreover the pores are situated higher on the sides of the body, etc.

6. *Diploiulus nanus* (LATZ.)

Vitznau and Lucerne.

7. *Diploiulus londinensis* (LEACH).

Basel, Lugano.

This species does not appear to extend into Italy.

8. **Pachyiulus varius** (FABR.).

Syn. **Julus pilipes**, Newport, 1844.

Venice.

9. **Pachyiulus flavipes** (C. KOCH).

Florence.

10. **Pachyiulus cattarensis** (LATZEL).

Venice.

11. **Ophiulus niger** (LEACH).

Syn. **I. albipes** and **transversosulcatus**, auct.

Vitznau.

12. **Ophiulus chilopogon** (LATZEL).

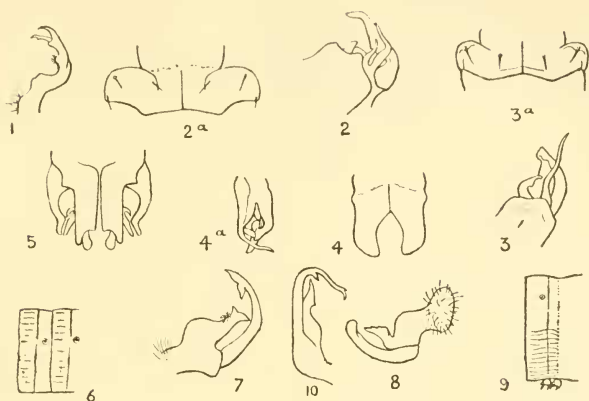
Specimens of this species were taken by Mr. Thomas at Fiesole near Florence, Bologna and Venice.

♀ examples from Florence attain a length of 34 mm.; the ♂ is much thinner and is about 27 mm. Segments are 58-59 in number.

In the ♂ the mandible is unmodified; but the stipites of the gnathochilarium are distinctly swollen and each bears a single long whitish styliform process, which may be termed a barbule (Bartfaden). The legs of the first pair are slender and hooked and there is a distinct, though small, forwardly directed process on the coxa of the second pair.

Two specimens obtained at Venice agree with those from Florence, except that they are smaller. The ♂ measures only 17 mm. in length and has only 54 segments, while a ♂ from Bologna, possibly wrongly identified, has 56 segments and the

barbule on the gnathochilarium is much shorter and appears to be nothing but a cluster setae.



EXPLANATION OF FIGURES

- Fig. 1. *Polydesmus genuensis*, sp. n. Copulatory foot from inside.
 » 2. *Atractosoma doriae*, sp. n. Copulatory feet from outside.
 » 2a. » » » Dorsal surface of a segment.
 » 3. *Atractosoma gestri*, sp. n. Copulatory apparatus from outside.
 » 3a. » » » Dorsal surface of a segment.
 » 4. *Iulus thomasi*, sp. n. Copulatory apparatus from before.
 » 4a. » » » Right half of copulatory apparatus from behind.
 » 5. » *aleator*, sp. n. Copulatory apparatus from before.
 » 6. » *brownii*, sp. n. Two segments showing position of pore.
 » 7. *Polydesmus thomasi*, sp. n. Copulatory foot from outside.
 » 8. » *asthenestatus*, sp. n. Copulatory foot from inside.
 » 9. *Mesoinulus mariae*, sp. n. Lateral view of a segment.
 » 10. *Polydesmus platynotus*, sp. n. External view of copulatory apparatus.